

GUJARAT TECHNOLOGICAL UNIVERSITY
B.E. SEMESTER : V
CHEMICAL TECHNOLOGY

Subject Name: Basics of Mass Transfer

Subject Code: 153502

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	University Exam(E)	University Exam(P)	Mid Sem Exam(Theory) (M)	Practical (Internal)
3	0	3	6	70	0	30	50

Sr. No.	Course contents
1.	Basics of Mass Transfer
2.	Diffusivity and mass transfer in Multiple system
3.	Mass Transfer Coefficients and Two film theory
4.	Various regimes of mass transfer with chemical Reactions in Multiphase Systems & Methods for discerning the controlling regime.

Reference Books:

1. Mass Transfer Operations, R E Treybal, Mc Graw Hill, 1980
2. Unit Operations of Chemical Engineering, Warren McCabe, Jubian Smith and Peter Harriot, Mc Graw Hill, 7th Ed., 2004
3. Transport Processes & Unit Operations in Chemical Engineering ,Gean Koplis, Prentice Hall, 2003
4. Coulson and Richardson's Chemical Engineering Volume 1 - Fluid Flow, Heat Transfer and Mass Transfer , Coulson, J.M.; Richardson, J.F.; Backhurst, J.R.; Harker, J.H. Elsevier, 6th Ed., 1999
5. Coulson and Richardson's Chemical Engineering Volume 2 – Particle Technology and Separation Processes, B J Blackhurst & J H Harker, Elsevier, 5th Ed., 2002
6. Coulson and Richardson's Chemical Engineering Volume 3 – Biochemical Reactors & Process Control, B J Blackhurst & J H Harker, Elsevier, 3rd Ed., 1994
7. Coulson and Richardson's Chemical Engineering Volume 4 – Solutions to the Problems in Chemical Engineering from Vol- 1, B J Blackhurst & J H Harker, Elsevier, 2001
8. Coulson and Richardson's Chemical Engineering Volume 5 – Solutions to the Problems in Chemical Engineering from Vol- 2 and Vol-3, B J Blackhurst & J H Harker, Elsevier, 2001
9. Chemical Engineering Design Volume 6, R K Sinnott, Coulson and Richardson's Chemical Engineering Elsevier, 4th Ed, 2005